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1 portion of said first side so that said integrated circuit device is within said internal cavity;
2 and
3 an epoxy encapsulant material filling a substantial portion of said internal
4 cavity, and said epoxy encapsulant material being in contact with both said integrated circuit
5 device and said top portion of said metal cap,
6 wherein said metal cap is constructed from a material selected from one of
7 copper, aluminum, or alloys thereof.

1 6. (Unamended) A ball-grid array package comprising:
2 a substrate having first and second sides;
3 a metal heat slug attached to said first side of said substrate, said metal heat
4 slug having a die attach pad portion, at least one wirebond pad window portion, and
5 peripheral rim portions;
6 an integrated circuit device attached to said die attach pad portion of said
7 metal heat slug;
8 a metal cap having a side wall portion and a top portion forming an internal
9 cavity, wherein said metal cap is attached to said metal heat slug along said peripheral rim
10 portions so that said integrated circuit device is within said internal cavity; and
11 an epoxy encapsulant material filling a substantial portion of said internal
12 cavity, said epoxy encapsulant material being in contact with both said integrated circuit
13 device and said top portion of said metal cap.

1 7. (Unamended) A ball-grid array package according to claim 6, further
2 comprising:
3 a retainer ring attached to said metal heat slug within said internal cavity.

1 8. (Unamended) A ball-grid array electronic package according to
2 claim 6, wherein said metal cap has at least one hole in its top portion.

1 9. (Unamended) A ball-grid array package according to claim 6, wherein
2 thermally conductive particles are dispersed in said epoxy encapsulant material, thereby
3 enhancing the thermal conductivity of said epoxy encapsulant.

1 10. (Unamended) A ball-grid array package according to claim 9, wherein
2 said thermally conductive particles are made from a material selected from one of diamond,
3 cubic boron nitride or an oxide such as alumina.

1 11. (Unamended) A ball-grid array package according to claim 1, wherein
2 said metal cap is constructed from a material selected from one of copper, aluminum, or
3 alloys thereof.